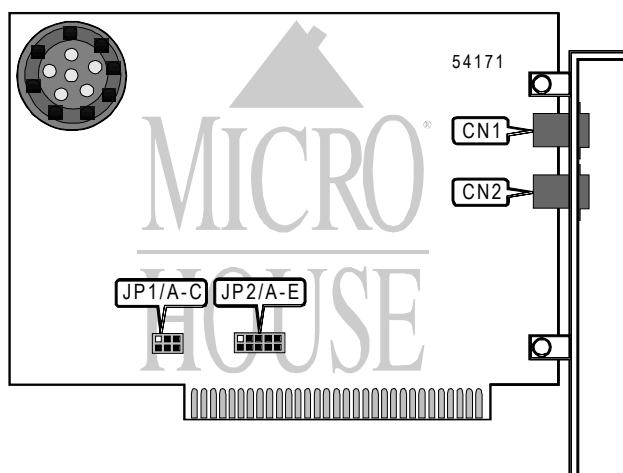


3COM CORPORATION

SPORTSTER 56K FAXMODEM (INTERNAL)

Card Type	Modem (asynchronous)
Chipset	U.S. Robotics
Maximum Data Rate	56Kbps
Maximum Fax Rate	14.4Kbps
Data Modulation	Bell 103A/212A ITU-T V.21, V.22, V.22bis, V.23, V.32, V.32bis, V.34 U.S. Robotics x2
Fax Modulation	ITU-T V.17, V.21CH2, V.27ter, V.29
Error Correction/Compression	MNP5, V.42, V.42bis
Fax Class	Class I & II
Data Bus	8-bit ISA
Card Size	Full height, one-third length



CONNECTIONS			
Function	Label	Function	Label
Telephone line out	CN1	Telephone line in	CN2

USER CONFIGURABLE SETTINGS		
Setting	Label	Position
Plug-N-Play disabled	JP1/C	Closed
Plug-N-Play enabled	JP1/C	Open

SERIAL PORT ADDRESS SELECTION		
Setting	JP1/A	JP1/B
3F8h (COM1:)	Closed	Closed
2E8h (COM2:)	Open	Closed
3F8h (COM3:)	Closed	Open
2E8h (COM4:)	Open	Open
Plug-N-Play	Open	Open

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SPORTSTER 56K FAXMODEM (INTERNAL)

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INTERRUPT SELECTION					
Setting	JP2/A	JP2/B	JP2/C	JP2/D	JP2/E
2	Closed	Open	Open	Open	Open
3	Open	Closed	Open	Open	Open
4	Open	Open	Closed	Open	Open
5	Open	Open	Open	Closed	Open
7	Open	Open	Open	Open	Closed
Plug-N-Play	Open	Open	Open	Open	Open

SUPPORTED STANDARD COMMANDS	
Basic AT Commands	
+++, 'comma', A/	
A, B, D, E, F, H, L, M, O, P, T, V, X, Z	
&C, &D, &F, &G, &P, &R, &S, &T, &W	
S-Registers	
S0, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S18, S25, S38	
Note: See MHI help file for complete information.	

Proprietary AT Command Set

BIT-MAPPED REGISTER S13		
Format	AT [cmds] S13=n [cmds]	
Default:	0	
Range:	0 - 223	
Description:	Controls DTR reset, DTR dialing, reset dialing, and MNP3.	
Bit	Value	Function
0	0	DTR normal.
	1	Reset on low DTR.
1	0	Non-error-correcting mode transmit buffer set to 1.5KB.
	1	Non-error-correcting mode transmit buffer set to 128 bytes.
2	0	Backspace and delete keys normal.
	1	Backspace and delete keys reversed.
3	0	DTR dialing disabled.
	1	DTR dialing enabled.
4	0	Reset dialing disabled.
	1	Reset dialing enabled.
5	0	Not used.
6	0	MNP 3 enabled.
	1	MNP 3 disabled.
7	0	Modem enters command state when +++ is received.
	1	Modem disconnects and enters command state when +++ is received.

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SPORTSTER 56K FAXMODEM (INTERNAL)

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BIT-MAPPED REGISTER S15			
AT [cmds] S15= <i>n</i> [cmds]			
0			
0 - 511			
Controls error correction and compression in selected protocols, MNP modes, and			
Value			Function
	í	0	Error correction/compression enabled in V.22 mode.
		1	Error correction/compression disabled in V.22 mode.
	í	0	Error correction/compression enabled.
		1	Error correction/compression disabled.
	í	0	MNP handshake enabled.
		1	MNP handshake disabled.
	í	0	MNP4 disabled.
		1	MNP4 enabled.
	í	0	MNP3 disabled.
		1	MNP3 enabled.
	í	0	MNP operation normal
		1	MNP configured for non-compatible
	í	0	V.42 enabled.
		1	V.42 disabled.
	í	0	V.42 detection phase enabled.
		1	V.42 detection phase disabled.

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SPORTSTER 56K FAXMODEM (INTERNAL)

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BIT-MAPPED REGISTER S27		
Format:	AT [cmds] S27= <i>n</i> [cmds]	
Default:	0	
Range:	0 - 255	
Description:	Controls V.21, V.32 encoding and modulation, V.32bis modulation, V.42 answer tone and selective reject, and 9600 result codes.	
Bit	Value	Function
0	0	V.21 disabled.
	1	V.21 enabled.
1	0	V.32 trellis coding enabled.
	1	V.32 trellis coding disabled.
2	0	V.32 modulation enabled.
	1	V.32 modulation disabled.
3	0	2100Hz answer tone enabled.
	1	2100Hz answer tone disabled.
4	0	Fallback to V.23 disabled.
	1	Fallback to V.23 enabled.
5	0	V.32bis modulation enabled.
	1	V.32bis modulation disabled.
6	0	V.42 selective reject enabled.
	1	V.42 selective reject disabled.
7	0	Actual result codes displayed.
	1	Force 9600 result codes.

BIT-MAPPED REGISTER S32		
AT [cmds] S32= <i>n</i> [cmds]		
2		
0 - 59		
Controls V.8 protocol and options, and V.34 and x2 modulation protocols.		
Value	Function	
0	0	V.8 Call Indicate disabled.
	1	V.8 Call Indicate enabled.
1	0	V.8 disabled.
	1	V.8 enabled.
2	0	Not used.
	1	Not used.
3	0	V.34 modulation enabled.
	1	V.34 modulation disabled.
4	0	V.34 modulation at 31.2Kbps and 300bps.
	1	V.34 modulation at 31.2Kbps and 300bps.
5	0	U.S. Robotics x2 modulation enabled.
	1	U.S. Robotics x2 modulation disabled.

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SPORTSTER 56K FAXMODEM (INTERNAL)

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BREAK LENGTH	
Type:	Register
Format:	AT [cmds] S21= <i>n</i> [cmds]
Default:	10
Range:	0 - 255
Unit:	10 ms
Description:	Sets the length of error correction mode breaks sent from DCE to DTE.

BREAK TYPE	
Type:	Configuration
Format:	AT [cmds] &Y <i>n</i> [cmds]
Description:	Configures action of break signal.
Command	Function
&Y0	Break empties buffer.
i &Y1	Break empties buffer and is sent immediately.
&Y2	Break does not empty buffer and is sent immediately.

COMPRESSION MODE	
Type:	Configuration
Format:	AT [cmds] &K <i>n</i> [cmds]
Description:	Selects the type of data compression that will be used.
Command	Function
&K0	Data compression disabled.
i &K1	Auto-detect compression mode.
&K2	Data compression enabled.
&K3	MNP5 data compression only enabled.

CONNECTION SPEED LOWER LIMIT	
Type:	Configuration
Format:	AT [cmds] &U <i>n</i> [cmds]
Description:	Sets slowest allowed connection speed if &N is set to 1 or higher.
Command	Function
&U0	No minimum connect speed.
&U1	Set minimum connect speed to 300bps.
&U2	Set minimum connect speed to 1200bps.
&U3	Set minimum connect speed to 2400bps.
&U4	Set minimum connect speed to 4800bps.
&U5	Set minimum connect speed to 7200bps.
&U6	Set minimum connect speed to 9600bps.
&U7	Set minimum connect speed to 12Kbps.
&U8	Set minimum connect speed to 14.4Kbps.
&U9	Set minimum connect speed to 16.8Kbps.
&U10	Set minimum connect speed to 19.2Kbps.
&U11	Set minimum connect speed to 21.6Kbps.

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CONNECTION SPEED LOWER LIMIT (CON'T)	
Command	Function
&U12	Set minimum connect speed to 24Kbps.
&U13	Set minimum connect speed to 26.4Kbps.
&U14	Set minimum connect speed to 28.8Kbps.
&U15	Set minimum connect speed to 31.2Kbps.
&U16	Set minimum connect speed to 33.6Kbps.
&U17	Set minimum connect speed to 33.3Kbps.
&U18	Set minimum connect speed to 37.3Kbps.
&U19	Set minimum connect speed to 41.3Kbps.
&U20	Set minimum connect speed to 42.6Kbps.
&U21	Set minimum connect speed to 44Kbps.
&U22	Set minimum connect speed to 45.3Kbps.
&U23	Set minimum connect speed to 46.6Kbps.
&U24	Set minimum connect speed to 48Kbps.
&U25	Set minimum connect speed to 49.3Kbps.
&U26	Set minimum connect speed to 50.6Kbps.
&U27	Set minimum connect speed to 52Kbps.
&U28	Set minimum connect speed to 53.3Kbps.
&U29	Set minimum connect speed to 54.6Kbps.
&U30	Set minimum connect speed to 56Kbps.
&U31	Set minimum connect speed to 57.3Kbps.

CONNECTION SPEED UPPER LIMIT	
Type:	Configuration
Format:	AT [cmds] &Nn [cmds]
Description:	Sets required connection speed if &U is set to 0; otherwise, sets fastest allowed connection speed.
Command	Function
&N0	No maximum connect speed.
&N1	Set maximum connect speed to 300bps.
&N2	Set maximum connect speed to 1200bps.
&N3	Set maximum connect speed to 2400bps.
&N4	Set maximum connect speed to 4800bps.
&N5	Set maximum connect speed to 7200bps.
&N6	Set maximum connect speed to 9600bps.
&N7	Set maximum connect speed to 12Kbps.
&N8	Set maximum connect speed to 14.4Kbps.
&N9	Set maximum connect speed to 16.8Kbps.
&N10	Set maximum connect speed to 19.2Kbps.
&N11	Set maximum connect speed to 21.6Kbps.
&N12	Set maximum connect speed to 24Kbps.
&N13	Set maximum connect speed to 26.4Kbps.
&N14	Set maximum connect speed to 28.8Kbps.
&N15	Set maximum connect speed to 31.2Kbps.

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CONNECTION SPEED UPPER LIMIT (CON'T)	
Command	Function
&N16	Set maximum connect speed to 33.6Kbps.
&N17	Set maximum connect speed to 33.3Kbps.
&N18	Set maximum connect speed to 37.3Kbps.
&N19	Set maximum connect speed to 41.3Kbps.
&N20	Set maximum connect speed to 42.6Kbps.
&N21	Set maximum connect speed to 44Kbps.
&N22	Set maximum connect speed to 45.3Kbps.
&N23	Set maximum connect speed to 46.6Kbps.
&N24	Set maximum connect speed to 48Kbps.
&N25	Set maximum connect speed to 49.3Kbps.
&N26	Set maximum connect speed to 50.6Kbps.
&N27	Set maximum connect speed to 52Kbps.
&N28	Set maximum connect speed to 53.3Kbps.
&N29	Set maximum connect speed to 54.6Kbps.
&N30	Set maximum connect speed to 56Kbps.
&N31	Set maximum connect speed to 57.3Kbps.

DISPLAY HELP SCREEN - AMPERSAND	
Type:	Configuration
Format:	AT [cmds] &\$ [cmds]
Description:	Displays the help screen on the AT& commands.

DISPLAY HELP SCREEN - BASIC	
Type:	Configuration
Format:	AT [cmds] \$ [cmds]
Description:	Displays the basic help screen.

DISPLAY HELP SCREEN - DIAL	
Type:	Configuration
Format:	AT [cmds] D\$ [cmds]
Description:	Displays the help screen on the dialing commands.

DISPLAY HELP SCREEN - REGISTERS	
Type:	Configuration
Format:	AT [cmds] S\$ [cmds]
Description:	Displays the help screen for S registers.

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SPORTSTER 56K FAXMODEM (INTERNAL)

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DISPLAY INFORMATION	
Type:	Immediate
Format:	AT [cmds] ln [cmds]
Description:	Displays modem properties.
Command	Function
I0	Displays product identification code.
I1	Tests and displays ROM checksum result.
I2	Tests and displays RAM checksum result.
I4	Displays current command settings.
I5	Displays current NVRAM settings.
I6	Displays current connection's statistics.
I7	Displays product configuration.

DISTINCTIVE RING	
Type:	Register
Format:	AT [cmds] S41= <i>n</i> [cmds]
Description:	Selects whether the modem will use the Distinctive Ring function.
Command	Function
i S41=0	Distinctive ring abled.
S41=1	Distinctive ring enabled.

ERROR CORRECTION MODE	
Type:	Configuration
Format:	AT [cmds] &M <i>n</i> [cmds]
Description:	Selects active error correction protocols.
Command	Function
&M0	Normal mode only.
i &M4	Auto-detect mode.
&M5	Error correction mode only.

EXTENDED RESULT CODES	
Type:	Configuration
Format:	AT [cmds] &A <i>n</i> [cmds]
Description:	Selects extended result codes.
Command	Function
&A0	Extended result codes disabled.
&A1	Error correction result codes enabled.
&A2	V.32 result code enabled.
i &A3	Error correction and compression result codes enabled.

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FLOW CONTROL CHARACTER - XOFF	
Type:	Register
Format:	AT [cmds] S23= <i>n</i> [cmds]
Default:	19
Range:	0 - 127
Unit:	1 ASCII character
Description:	Sets the character used to represent XOFF.

FLOW CONTROL CHARACTER - XON	
Type:	Register
Format:	AT [cmds] S22= <i>n</i> [cmds]
Default:	17
Range:	0 - 127
Unit:	1 ASCII character
Description:	Sets the character used to represent XON.

FLOW CONTROL - MODEM-TO-MODEM	
Type:	Configuration
Format:	AT [cmds] &I <i>n</i> [cmds]
Description:	Selects the type of modem-to-modem flow control used.
Command	Function
i &I0	Software flow control disabled.
&I1	XON/XOFF pass-through enabled.
&I2	XON/XOFF pass-through disabled.

FLOW CONTROL TYPE	
Type:	Configuration
Format:	AT [cmds] &H <i>n</i> [cmds]
Description:	Sets type of flow control used by modem.
Command	Function
&H0	Flow control disabled.
i &H1	CTS/RTS flow control enabled.
&H2	XON/XOFF flow control enabled.
&H3	CTS/RTS and XON/XOFF flow control enabled.

INACTIVITY TIMER	
Type:	Register
Format:	AT [cmds] S19= <i>n</i> [cmds]
Default:	0
Range:	0 - 255
Unit:	1 minute
Description:	Maximum duration of DTE and DCE inactivity allowed prior to initiating hang-up process.

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LOCK SERIAL PORT	
Type:	Configuration
Format:	AT [cmds] &B <i>n</i> [cmds]
Description:	Sets operation of serial port speed.
Command	Function
&B0	Serial speed follows connect speed.
&B1	Serial speed locked.
í &B2	Serial speed locked in error correction mode only.

RESULT CODES	
Type:	Configuration
Format:	AT [cmds] Q <i>n</i> [cmds]
Description:	Enables modem to send result codes to the DTE.
Command	Function
í Q0	Result codes enabled.
Q1	Result codes disabled.
Q2	Result codes enabled in originate mode only.

TONE DIALING TEST	
Type:	Register
Format:	AT [cmds] S16= <i>n</i> [cmds]
Description:	Begins a tone dialing test.
Command	Function
í S16=0	Tone dialing test disabled.
S16=2	Tone dialing test enabled.

V.21 ANSWER MODE FALLBACK TIMER	
Type:	Register
Format:	AT [cmds] S29= <i>n</i> [cmds]
Default:	20
Range:	Unidentified
Unit:	.1 second
Description:	The function of this register is unidentified.

V.32 HANDSHAKE TIME	
Type:	Register
Format:	AT [cmds] S28= <i>n</i> [cmds]
Default:	8
Range:	0 - 255
Unit:	.1 second
Description:	Sets length of V.32 handshake. A value of 255 means that the modem will only accept connections with V.32 at 9600bps.

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SPORTSTER 56K FAXMODEM (INTERNAL)

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V.34 MAPPING		
Type:	Register	
Format:	AT [cmds] S34= <i>n</i> [cmds]	
Default:	0	
Range:	0 - 15	
Description:	Controls V.34 mapping, non-linear coding, transmit level deviation, pre-emphasis, and pre-coding.	
Bit	Value	Function
0	0	8S-2D map enabled.
	1	8S-2D map disabled.
1	0	16S-4D map enabled.
	1	16S-4D map disabled.
2	0	32S-2D map enabled.
	1	32S-2D map disabled.
3	0	64S-4D map enabled.
	1	64S-4D map disabled.
4	0	Non-linear coding enabled.
	1	Non-linear coding disabled.
5	0	Transmit level deviation enabled.
	1	Transmit level deviation disabled.
6	0	Pre-emphasis enabled.
	1	Pre-emphasis disabled.
7	0	Pre-coding enabled.
	1	Pre-coding disabled.

V.34 OPTIONS		
Type:	Register	
Format:	AT [cmds] S33= <i>n</i> [cmds]	
Default:	0	
Range:	0 - 255	
Description:	Controls V.34 baud rate and shaping.	
Bit	Value	Function
0	0	2400 baud rate enabled.
	1	2400 baud rate disabled.
1	0	2743 baud rate enabled.
	1	2743 baud rate disabled.
2	0	2800 baud rate enabled.
	1	2800 baud rate disabled.
3	0	3000 baud rate enabled.
	1	3000 baud rate disabled.
4	0	3200 baud rate enabled.
	1	3200 baud rate disabled.
5	0	3429 baud rate enabled.
	1	3429 baud rate disabled.
6	0	Not used.
7	0	Shaping enabled.
	1	Shaping disabled.